

**CLAIMS**

1. Resonant detection or identification antenna of the type comprising at least one turn (3 to 5; 11; 12; 21; 31) which comprises at least one electrically conducting wire and is connected to a transponder electronic chip (7), the operating frequency of the said antenna being greater than or equal to 10 MHz, the area defined by the said at least one turn being substantially less than or equal to  $0.30\text{ m}^2$ , characterized in that the total capacitance of the antenna (1; 10; 20; 30) is substantially greater than or equal to 140 pF and in that the Q-factor of the said at least one turn (3 to 5; 11, 12; 21; 31) is substantially greater than or equal to 30.
2. Resonant antenna according to Claim 1, characterized in that the transponder chip (7) has a first capacitor of predetermined value and in that a second capacitor (8) is placed in parallel with the electronic chip (7) in such a way that the overall capacitance of the antenna (1; 10; 20; 30) is greater than or equal to 140 pF.
3. Resonant antenna according to Claim 1 or 2, characterized in that the said at least one turn (3 to 5; 11, 12; 21; 31) has mechanical properties suitable for the antenna (1; 10; 20; 30) to retain by itself a predetermined shape.
4. Resonant antenna according to Claim 1 or 2, characterized in that the said at least one turn (3 to 5; 11, 12; 21; 31) is fastened to a support (2).
5. Resonant antenna according to any one of Claims 1 to 4, characterized in that the said at least one

turn (3 to 5; 11, 12; 21; 31) comprises a single-strand wire.

6. Resonant antenna according to any one of Claims 1  
5 to 4, characterized in that the said at least one turn (3 to 5; 11, 12; 21; 31) comprises a wire formed from seven strands and the diameter of which is substantially equal to 0.25 mm.
- 10 7. Resonant antenna according to any one of Claims 1 to 4, characterized in that the said at least one turn (3 to 5; 11, 12; 21; 31) takes the form of a track deposited on a substrate and the width and the thickness of which are substantially equal to 15 at least 1.4 mm and 35  $\mu\text{m}$  respectively.
8. Resonant antenna according to any one of Claims 1 to 7, characterized in that the antenna (1; 10; 20; 30) comprises a single turn (3).
- 20 9. Resonant antenna according to Claim 8, characterized in that the single turn is chosen from one of the rectangular shapes having recessed corners and rectangular shapes having cut corners.
- 25 10. Resonant antenna according to any one of Claims 1 to 7, characterized in that the antenna (10) comprises a first turn (11) and a second turn (12) which is placed inside the first turn and the area 30 of which lies substantially between 10% and 90% of the area of the said first turn (11).
11. Resonant antenna according to Claim 10, characterized in that the area of the second turn (12) is substantially equal to half the area of 35 the first turn (11).